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09/138,054	08/21/1998	RAMANATHAN RAMANATHAN	INTL-0084-US	3628

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10/09/2003

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EXAMINER

VU, NGOC K

ART UNIT

PAPER NUMBER

2611

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/138,054

Applicant(s)

RAMANATHAN, RAMANATHAN

Examiner

Ngoc K. Vu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-15,17,19-21,23,25-27 and 29-52 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

- 5) ☒ Claim(s) 14,15,17,19-21,23,25-27,29,30,33-41,44 and 45 is/are allowed.

- 6) ☒ Claim(s) 1,4-7,10,11,31,32,42,46 and 48-52 is/are rejected.

- 7) ☒ Claim(s) 3,8,9,12,13,43 and 47 is/are objected to.

- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 3-15, 17, 19-21, 23, 25-27 and 29-52 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation "an additional transmitter module" in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 46, 48 and 49-52 rejected under 35 U.S.C. 102(e) as being anticipated by Zhang et al. (US 6,181,711 B1).

Regarding claim 46, Zhang et al. disclose a computer-readable medium storing a program executable (software) by a computer in a transmission system (300, 900 – see figures 3-5, 9 and 11) including a transmitter (306, 906) coupled to a transport medium (18) and a data

management module (304, 904, 1102), the program comprising instructions for causing the computer to: retrieve stored information to identify at least one transmission characteristic of the transmitter (ATM or ADSL transmission characteristic) (for example, the input of the rate controller is coupled to receive a control signal indicating the amount of conversion or the desired output bit rate for the bit rate converter. The control signal specifies the amount of modifying each of the modification units performs to achieve the desired output bit rate from the bit rate converter – see col. 10, lines 42-55); modify data flow management based on the identified at least one transmission characteristic (ATM or ADSL transmission characteristic) (adjust the bit rate of the bit stream based on the rate value – see abstract; col. 10, lines 31-57; col. 15-16, lines 33-26; figures 3-5, 9 and 11); and cause the data management module and the transmitter to exchange information relating to the transport medium's said at least one transmission characteristic (for example, the transmitter 906 sends a control signal to conversion device 904 via 912, then conversion device 904 outputs the bit stream via 910. It is noted that the control signal specifies the amount of modifying each of the modification units performs to achieve the desired output bit rate from the bit rate converter – see col. 10, lines 42-55 and figure 9).

Regarding claim 48, Zhang et al. disclose that the information specifies one or more of the following: maximum transfer rate, maximum size of each data packet, and usage of compression (e.g., a means to convey the maximum channel transmission rate to the conversion system to allow satisfactory transmission of the bit stream from the input of the rate converter through the transmission facility – see abstract; col. 16, lines 38-49).

Regarding claim 49, Zhang et al. disclose that the information comprises at least one of information to indicate if the transmitter module is able to assign priorities to data, and information to indicate if the transmitter module is able to perform bandwidth management (for

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example, specific bit streams may be designated to have a priority in receiving a certain percentage of channel availability – see col. 15, lines 12-19).

Regarding claim 50, Zhang et al. disclose a method of managing data flow over a transport medium (18) in an interactive transmission system (300, 900), comprising: accessing stored configuration information; identifying, based on the accessed configuration information, at least one transmission characteristic of a transmitter (e.g., ATM or ADSL transmission characteristic) used to transmit data over the transport medium (for example, the input of the rate controller is coupled to receive a control signal indicating the amount of conversion or the desired output bit rate for the bit rate converter. The control signal specifies the amount of modifying each of the modification units performs to achieve the desired output bit rate from the bit rate converter – see col. 10, lines 42-55); and modifying data flow management based on the identified at least one transmission characteristic (adjust the bit rate of the bit stream based on the rate value – see abstract; col. 10, lines 31-57; col. 15-16, lines 33-26; figures 3-5, 9 and 11), wherein the configuration information comprises at least one of information to indicate if the transmitter module is able to assign priorities to data, and information to indicate if the transmitter module is able to perform bandwidth management (for example, specific bit streams may be designated to have a priority in receiving a certain percentage of channel availability – see col. 15, lines 12-19).

Regarding claim 51, Zhang et al. disclose the method of claim 50, the configuration information to specify one or more of the following: maximum transfer rate, maximum size of each data packet, and usage of compression (e.g., a means to convey the maximum channel transmission rate to the conversion system to allow satisfactory transmission of the bit stream from the input of the rate converter through the transmission facility – see abstract; col. 16, lines 38-49).

Regarding claim 52, Zhang et al disclose the method of claim 50, wherein the configuration information comprises at least one of information to indicate if the transmitter module is able to assign priorities to data, and information to indicate if the transmitter module is able to perform bandwidth management (for example, specific bit streams may be designated to have a priority in receiving a certain percentage of channel availability – see col. 15, lines 12-19).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4-7, 10, 11, 31, 32 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,181,711 B1).

Regarding claim 1, Zhang et al. discloses a transmission system (300, 900), comprising: a data management module (304, 904, 1102) capable of managing data flow; and a first transmitter module (306, 906) coupled to a transport medium (18) and to the data management module (304, 904, 1102), the transmitter module to contain configuration information (e.g., a rate value – see col. 10, lines 42-45; col. 15, line 60 to col. 16, line 4) specifying at least one predefined transmission characteristic (for instance, ADSL or ATM transmission characteristic – see col. 10, lines 45-49); the data management module (304, 904, 1102) to access the configuration information to determine the at least one predefined transmission characteristic (ADSL or ATM transmission characteristic) and to modify data flow management based on the at least one predefined transmission characteristic (adjust the bit rate of the bit stream based on the rate value – see abstract; col. 10, lines 31-57; col. 15-16, lines 33-26; figures 3-5, 9 and 11).

Zhang et al. does not disclose “an additional transmitter module”. However, Toyoshima teaches a plurality of video transmitters (13A1-13An) as video sending stations as shown in figure 7 (see figure 7; col. 10, lines 65-67; col. 12, lines 18-21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Zhang et al. by including a plurality of video transmitters as video sending stations as taught by Toyoshima to provide the video signals to the receiving station more reliable.

Regarding claim 4, Zhang et al. disclose the transmission system of claim 1, wherein the transmission characteristic of the first transmitter module varies over time (using bit rate conversion to match the rate of the bit stream to the capacity of the channel. It is noted that bit rate may not be constant, but variable under certain constraints – see col. 8-9, lines 57-21).

Regarding claim 5, Zhang et al. disclose the transmission system of claim 1, further comprising an interface between the data management module and the first transmitter module (for example, the output of the bit rate conversion device 304 is in turn coupled to the input of the transmitter 306 by line 308 – see col. 8, lines 50-52).

Regarding claim 6, Zhang et al. disclose that the output of the bit rate conversion device 304 is in turn coupled to the input of the transmitter 306 by line 308 – see col. 8, lines 50-52). Zhang et al. do not explicitly disclose the interface including an API interface. Official Notice is taken that utilizing API interface for compatible communication between the different protocols in data communication system is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Zhang et al. by including API interface for compatible communication between the different protocols.

Regarding claim 7, Zhang et al. disclose the transmission system of claim 1, wherein the transmission characteristic includes a data flow rate of the first transmitter module (for example,

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line 434 may be coupled to line 912 to receive a rate value from a RADSL transmitter 906 in ADSL environment or to line 1112 to receive a rate value from an ATM network 1106 in an ATM environment – see 10, col. 45-49).

Regarding claim 10, Zhang et al. disclose that the transmission system of claim 1, the data management module to combine digital data with video data to transmit over the transport medium (18) (see col. 10, lines 4-13 and figures 4-5). Zhang et al. as modified by Toyoshima further discloses providing video signal that is outputted from the television camera (see Zhang: col. 9, lines 35-41).

Regarding claim 11, Zhang et al. disclose the transmission system of claim 1, wherein the transport medium includes a medium selected from the group consisting of an airware transmission, a cable transmission, a satellite transmission, a digital television transmission, and a computer (transmission system may be any one of a number of conventional transmission systems, including but not limited to ASDL, ATM, ISDN links, wireless/terrestrial networks, digital satellites, and digital cable networks, etc. – see col. 8, lines 35-36).

Regarding claim 31, Zhang et al. disclose the transmission system of claim 1, the configuration information to specify maximum transfer rate (e.g., a means to convey the maximum channel transmission rate to the conversion system to allow satisfactory transmission of the bit stream from the input of the rate converter through the transmission facility – see abstract; col. 16, lines 38-49).

Regarding claim 32, Zhang et al. disclose transmission system of claim 1, wherein the configuration information comprises at least one of information to indicate if the first transmitter module is able to assign priorities to data, and information to indicate if the transmitter module is able to perform bandwidth management (for example, specific bit streams may be designated to



have a priority in receiving a certain percentage of channel availability – see col. 15, lines 12-19).

Regarding claim 42, Zhang et al. disclose the transmission system of claim 1, wherein the transmission characteristic includes a data flow rate of the transmitter module (for example, line 434 may be coupled to line 912 to receive a rate value from a RADSL transmitter 906 in ADSL environment or to line 1112 to receive a rate value from an ATM network 1106 in an ATM environment – see 10, col. 45-49).

***Allowable Subject Matter***

7. Claims 3, 8, 9, 12, 13, 43 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 3, the prior art of record fails to teach or fairly suggest “each transmitter module is associated with a different transport medium”.

Regarding claims 8 and 43, the prior art of record fails to teach or fairly suggest “the data flow rate is adjusted to compensate for delays in the transmitter module”.

Regarding claim 9, the prior art of record fails to teach or fairly suggest “the data management module to continue to receive said at least one transmission characteristic and to adjust the data flow management if the said at least one transmission characteristic changes”.

Regarding claim 12, the prior art of record fails to teach or fairly suggest “the configuration information is retrieved by the data management module at startup of the first transmitter module or data management module”.

Regarding claim 13, the prior art of record fails to teach or fairly suggest “the data management module and first transmitter module to continue to exchange configuration information after startup”.

Regarding claim 47, the prior art of record fails to teach or fairly suggest "the data management module and transmitter exchange information on a continuous basis".

8. Claims 14, 15, 17, 19-21, 23, 25-27, 29, 30, 33-41, 44 and 45 allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 14, the prior art of record fails to teach or fairly suggest "at least another transmitter coupled to at least another transport medium".

Regarding claim 21, the prior art of record fails to teach or fairly suggest "identify a transmission characteristic of at least another transport medium over which data is to be transmitted by at least another transmitter".

Regarding claim 27, the prior art of record fails to teach or fairly suggest "identifying a transmission characteristic of at least another transmitter used to transmit data over a different transport medium".

Regarding claim 39, the prior art of record fails to teach or fairly suggest "wherein the configuration information is retrieved by the data management module at startup of the transmitter module or data management module".

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 703-306-5976. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

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A handwritten signature in black ink, appearing to read 'Ngoc K. Vu', with a long horizontal flourish extending to the right.

Ngoc K. Vu  
Examiner  
Art Unit 2611

October 6, 2003